

**UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION**

**BP EXPLORATION & PRODUCTION
INC. AND BP AMERICA
PRODUCTION COMPANY**

Plaintiffs,

V.

**HALLIBURTON ENERGY SERVICES,
INC.**

Defendant.

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C.A. NO. 4:11cv1526

ADMIRALTY

PLAINTIFFS' ORIGINAL COMPLAINT

BP Exploration & Production Inc. & BP America Production Company (collectively "BP") bring this action to hold Halliburton Energy Services, Inc. ("Halliburton") accountable for its improper conduct, errors and omissions, including fraud and concealment, as set forth below, that caused and/or contributed to the explosion, fire, loss of rig, deaths, personal injuries, and the resulting release of oil and hazardous substances in connection with the *Deepwater Horizon* incident.

This complaint is brought as a protective companion action to the cross-complaint and third-party complaint filed on April 20, 2011 in MDL No. 2179, *In re: Oil Spill by the Oil Rig "Deepwater Horizon" in the Gulf of Mexico, on April 20, 2010*, pending in the Eastern District of Louisiana before the Honorable Carl J. Barbier. BP believes that this action should properly be consolidated with BP's cross-claims and third-party claims in MDL No. 2179, and will promptly seek to transfer and consolidate this action.

INTRODUCTION

1. BP Exploration & Production and its co-lessees, as leaseholders of the Macondo prospect, drilled an exploratory well in Mississippi Canyon 252 (“MC252”) to discover whether any oil and gas could be extracted. To drill the well, BP hired Transocean Inc. (“Transocean”), which used the *Deepwater Horizon* to drill the MC252 exploratory well.

2. Halliburton provided cementing and mud logging services at the MC252 exploratory well.

3. Halliburton’s improper conduct, errors and omissions, including fraud and concealment, caused and/or contributed to the *Deepwater Horizon* incident. In overview, Halliburton designed and pumped a cement slurry into the Macondo well that was unstable and unlikely to isolate the hydrocarbons. Halliburton could not have caused the resulting damage without concealing from BP material facts and expert opinions about its cement slurry, including its properties, weaknesses, and its likelihood of failure. This concealment by Halliburton from BP of material facts about its cement slurry began before the cement job and continued after the cement job, after the explosion occurred, and even as BP was drilling a relief well to stop oil from flowing into the Gulf of Mexico. Halliburton additionally failed to monitor the well during critical operations on the evening of April 20, 2010. Halliburton’s intentional misstatement of material facts to BP, combined with its intentional concealment of material information and data from BP—both before and after the explosion—caused significant injuries to BP as well as to other third parties. As a direct result of Halliburton’s improper conduct, the Macondo well blew out, killing eleven men, injuring numerous others, sinking the *Deepwater Horizon*, and spilling crude oil and hydrocarbons into the Gulf of Mexico with its attendant environmental consequences.

4. Transocean filed a Complaint and Petition for Exoneration from or Limitation of Liability, Civil Action No. 10-2771, in the Eastern District of Louisiana (“Limitation Action”). Plaintiffs/Claimants have filed or will file claims against Transocean in the Limitation Action. On February 18, 2011, Transocean filed a Rule 14(c) Third-Party Complaint against BP, among others, to implead them into the Limitation Action and tender them to the Plaintiffs/Claimants.

5. On December 15, 2010, the United States of America filed a complaint, Civil Action No. 10-4536, in the Eastern District of Louisiana (the “DOJ Complaint”) against BP Exploration & Production Inc., Anadarko Exploration & Production LP (“Anadarko Exploration”), Anadarko Petroleum Corporation (“Anadarko Petroleum”), MOEX Offshore 2007 LLC (“MOEX”), Triton Asset Leasing GmbH (“Triton”), Transocean Holdings LLC (“Transocean Holdings”), Transocean Offshore Deepwater Drilling Inc. (“Transocean Offshore”), Transocean Deepwater Inc. (“Transocean Deepwater”), and QBE Underwriting Ltd., Lloyd’s Syndicate 1036 (“Lloyd’s”) seeking, *inter alia*, “a declaratory judgment that is binding in this action and any subsequent action or actions against Defendants BP, Anadarko Exploration, Anadarko Petroleum, MOEX, Triton, Transocean Holdings, Transocean Offshore, and Transocean Deepwater, jointly and severally and without any limitation, and Lloyd’s, the latter up to the amount of its COFR guarantee, that said Defendants are liable for, *inter alia*, removal costs and damages in this action and in any such subsequent action or actions.”

THE PARTIES

6. BP Exploration & Production Inc. is a Delaware Corporation with its principal place of business in Houston, Texas. Its address is 501 Westlake Park Boulevard, Houston, Texas 77079.

7. BP America Production Company is a Delaware Corporation with its principal place of business in Warrenville, Illinois. Its address is 4101 Winfield Road, Warrenville, Illinois 60555.

8. Halliburton is organized under the laws of Delaware with its principal place of business in Houston, Texas.

JURISDICTION & VENUE

9. This action arises out of and in connection with drilling operations by the *Deepwater Horizon* in the MC252 operating area in the Gulf of Mexico.

10. BP's claim arises out of and in connection with drilling operations by the *Deepwater Horizon*, a vessel. This Court has jurisdiction pursuant to 28 U.S.C. § 1333. The claims presented in this pleading are admiralty or maritime claims within the meaning of Rule 9(h) of the Federal Rules of Civil Procedure, and BP designates this case as an admiralty or maritime case as provided in that Rule.

11. Venue is proper in this District pursuant to 28 U.S.C. § 1391(b)-(c).

BACKGROUND ON THE COMPANIES INVOLVED

12. BP is one of the world's largest energy companies, providing its customers with fuel for transportation, energy for heat and light, retail services and petrochemicals products for everyday use. Among its operations, BP conducts drilling operations in the Gulf of Mexico where the accident that gives rise to this lawsuit occurred.

13. Halliburton is one of the world's largest providers of services to the energy industry. With more than 55,000 employees in approximately 70 countries, Halliburton provides services to the oil and gas industry throughout the lifecycle of the reservoir—from locating hydrocarbons and managing geological data, to drilling and formation evaluation, well construction and completion, including cement and mud logging operations, and optimizing

production through the life of the field. Halliburton holds itself out to the industry in general, and to BP in particular, as a provider of expert services in various fields, including cementing and drilling fluid (“mud”) monitoring services.

14. Halliburton claims that it originated oilfield cementing and further claims that it “leads the world in effective, efficient delivery of zonal isolation and engineering for the life of the well.” BP reasonably believed and relied upon Halliburton’s representations in this regard with respect to the operations at the Macondo well.

15. Halliburton claims that “Halliburton’s Surface Data Logging from Sperry Drilling Services ensures you get the best information from your well, so you make better drilling decisions, faster.” Halliburton also makes express representations in its contracts, including its contract with BP, regarding its expertise and the performance characteristics of its data logging and drilling services. BP reasonably believed and relied upon Halliburton’s representations in this regard with respect to the operations at the Macondo well.

16. Halliburton claims that “Sperry Drilling Services is the preferred deepwater drilling provider in the Gulf of Mexico, where we serve more than half the rigs drilling in ultra-deepwater of 5000 feet or more. When you’ve got challenges out of the ordinary, we are the company to go to.” BP reasonably believed and relied upon Halliburton’s representations in this regard with respect to the operations at the Macondo well.

17. Halliburton further claims that “Detecting fluid influx and mud losses while circulating, [Sperry’s] Early Warning System immediately alerts operators to flow changes, and identifies washouts or restrictions in the system, as well as hole ‘breathing’ or ballooning, so you can take action to avert trouble.” BP reasonably believed and relied upon Halliburton’s representations in this regard with respect to the operations at the Macondo well.

BP'S LEASEHOLD AND INTEREST IN THE MACONDO WELL.

18. The well at issue is the exploratory well drilled in the Macondo prospect of Mississippi Canyon 252 in the outer continental shelf of the Gulf of Mexico (the “Macondo well”). The Macondo well is located approximately forty-eight miles from the nearest shoreline, and approximately 130 miles southeast of New Orleans, Louisiana. (See Figure 1.)

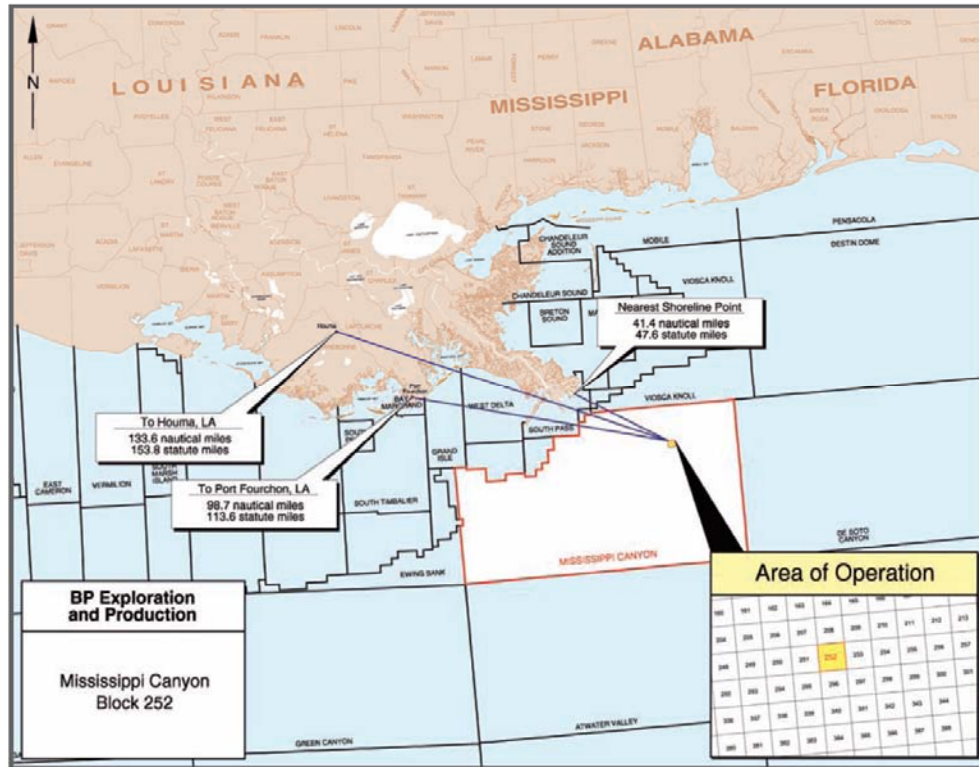


Figure 1. Geographic Location of the Lease and Well

19. On March 19, 2008, BP submitted its bid application to lease lot #252 in the Mississippi Canyon (MC 252) to the Minerals Management Service (“MMS”), a bureau within the United States Department of the Interior. The MMS issued the lease (Lease OCS-G 32306) to BP on June 1, 2008. The MMS has since been renamed as the Bureau of Ocean Energy Management, Regulation and Enforcement (“BOEMRE”).

20. After acquiring the leasehold in the Macondo prospect, BP exchanged portions of its interest in the Macondo prospect with other companies. MOEX Offshore 2007 LLC became a 10% owner and Anadarko Petroleum Corporation became a 25% owner.

WELL PLANNING AND DESIGN

21. The Macondo well was designed so that it could later be completed to be a production well if sufficient hydrocarbons were found.

22. The BP Macondo well engineering team worked in conjunction with the BP subsurface team and selected specialist contractors to develop the Macondo well design. The teams estimated the pore pressures and strengths of the geologic formations and used these estimates in developing the design basis for the well.

23. In October 2009, BP began drilling the Macondo well with the *Transocean Marianas* rig. After Hurricane Ida damaged the *Transocean Marianas*, BP planned to use the *Transocean Deepwater Horizon* rig to resume drilling operations on the well.

THE *DEEPWATER HORIZON* MOBILE OFFSHORE DRILLING UNIT

24. The *Deepwater Horizon* was a fifth-generation, RBS-8D design (*i.e.*, model type), deepwater dynamically positioned, column-stabilized, semi-submersible mobile offshore drilling unit, designed to drill subsea wells for oil exploration and production using an 18.75 in (476 mm), 15,000 psi (100,000 kPa) blowout preventer, and a 21 in (530 mm) outside diameter marine riser. The vessel was capable of operating in waters up to 8,000 feet deep, to a maximum drill depth of 30,000 feet.

25. The *Deepwater Horizon* was owned and operated by Transocean and had been under contract to BP in the GoM for approximately nine years. During this time, it drilled approximately thirty wells, two-thirds of which were exploration wells. The rig was chosen to finish the Macondo well after completing its previous project (the Kodiak appraisal well).

26. In February 2010, the *Deepwater Horizon* recommenced drilling operations on the Macondo well.

BP HIRES HALLIBURTON TO DESIGN AND CEMENT ITS WELLS, AND TO BE THE SENTINEL ON GUARD FOR WELL FLOW TO PREVENT A BLOWOUT.

27. Like other operators in the Gulf of Mexico, BP relies upon and hires specialists and experts to perform operations associated with offshore drilling. Halliburton is one of the companies that provide specialized and expert support to operators such as BP.

28. Halliburton holds itself out as the leader in cementing services:

- a. “Halliburton, the industry leader in cementing innovation, offers proven solutions for every cement job.”
- b. “Halliburton originated the cementing process and remains today the world leader in market position and customer perception.”
- c. “While the majority of wells drilled can be cemented with standard slurries and equipment, Halliburton has also distinguished itself as a reliable provider of cementing solutions to meet challenging downhole and environmental conditions.”
- d. “From Halliburton, the cementing and drilling fluids pioneer, comes another innovative, fit-for purpose cementing first: our **Tuned Cementing Solutions™** approach. Halliburton’s **Tuned** systems deliver the best solution for any given set of wellbore conditions.... For reliability and ingenuity, the one to call is Halliburton. Whatever your cementing challenge.”
- e. “Foam cement helps improve mud displacement, helps prevent gas migration and helps protect the formation:

The compressed gas bubbles in foam cement shrink or expand, but they don't move around or coalesce....Result: virtually no gas migration into the cement, ever—while the cement is being placed or while it sets.”

29. Halliburton made the aforementioned representations and others with the intention that operators like BP would rely upon them and hire Halliburton as a contractor to provide cementing and other services.

30. BP relied on the many Halliburton representations as part of its decision to enter into an agreement with Halliburton to provide cementing, mud logging and other services. BP paid Halliburton significant sums of money for the specialized and expert services Halliburton provided to BP. BP also relied upon Halliburton with respect to the cementing and mud logging services Halliburton provided to BP in connection with and for the Macondo well.

UNDER THE WELL SERVICES CONTRACT, HALLIBURTON PROMISED AND REPRESENTED THAT IT WOULD PROVIDE AN ARRAY OF PROFESSIONAL SERVICES IN SUPPORT OF BP'S OPERATIONS IN THE GULF OF MEXICO, INCLUDING CEMENTING AND MUD LOGGING SERVICES

31. On April 15, 2009, BP Exploration & Production and Halliburton entered into a written contract for Offshore Well Services in the Gulf of Mexico (“Well Services Contract”).

32. The Well Services Contract covered a number of professional services, including cementing and mud logging, that Halliburton would provide to BP in support of its drilling operations in the Gulf of Mexico. The services are referred to in the contract by the defined term “WORK.”

33. Under the Well Services Contract, Halliburton promised and represented to BP that it would “carry out all of its obligations under the contract and shall execute the

WORK with all due care and diligence and with the skill to be expected of a reputable contractor experienced in the types of work to be carried out under the contract.” BP reasonably believed and relied upon Halliburton’s representations in this regard with respect to the operations at the Macondo well.

34. Under the Well Services Contract, Halliburton promised and represented to BP that it “shall take full responsibility for the adequacy, stability, health, safety and environmental protection of all its operations and methods necessary for the performance of the WORK.” BP reasonably believed and relied upon Halliburton’s representations in this regard with respect to the operations at the Macondo well.

35. Under the Well Services Contract, Halliburton agreed to comply with BP’s requests, “except to the extent” they “create a hazard to safety.” Thus, under the contract, Halliburton was empowered to refuse any task or request that created a safety hazard.

36. Under the Well Services Contract, Halliburton represented and promised to BP that “all personnel employed on the WORK shall, for the WORK they are required to perform, be competent, properly qualified, skilled and experienced in accordance with good industry practice.” BP reasonably believed and relied upon Halliburton’s representations in this regard with respect to the operations at the Macondo well.

37. Under the Well Services Contract, Halliburton warranted, promised, represented, and guaranteed to BP that it would “exercise all reasonable skill, care and diligence in the performance of the WORK and shall carry out the WORK in accordance with the requirements of the CONTRACT and to internationally recognized good oilfield practices and standards.” BP reasonably believed and relied upon Halliburton’s representations in this regard with respect to the operations at the Macondo well.

38. Under the Well Services Contract, Halliburton represented and promised to BP that it “shall ensure that its personnel are aware of and carry out their own obligations with regard to health, safety and the environment including the strict obligation to report unsafe working conditions, hazards...and environmental issues.” BP reasonably believed and relied upon Halliburton’s representations in this regard with respect to the operations at the Macondo well.

CEMENTING SERVICES UNDER THE WELL SERVICES CONTRACT

39. Halliburton’s cementing services were covered in Section 3, Appendix 5 (A) to the Well Services Contract. Pursuant to the contract, Halliburton promised and represented to BP that it would provide an onshore engineer to work at BP’s offices and be a member of the BP well planning team with the following roles and responsibilities:

- (a) Provide Safety Leadership training to all [Halliburton] personnel performing work under the contract;
- (b) Participate in all [BP’s] safety initiatives and setting of safety targets and goals for all [Halliburton] personnel performing work under the contract;
- (c) Take full accountability for the technical quality, safety and environmental performance of all sub-contracted services managed by [Halliburton];
- (g) Apply risk based engineering processes to prepare the BOD, individual well programs and all associated engineering and documentation;
- (i) Provide engineering support for all aspects of the service provided and fully competent in running all engineering software models offered to support the service, including the ability to run [Halliburton’s] cementing software from [BP’s] office;
- (j) Provide solutions where conventional cement design and procedures are not suitable, such as blend and foam cement;
- (k) Make recommendations on fit for purpose slurry designs to meet agreed specification;
- (l) Participate in the review of the previous days drilling activities with [BP’s] onsite and offsite drilling management as required;

- (w) [Halliburton's] Onshore Engineer shall ensure the equipment is fit to perform the planned work;
- (x) Produce or ensure the following documents are prepared, approved, and issued:

Cement Program

- Specific well details which impact cementing design (depths/casing sizes/temperatures (static and circulating), hole sizes, proposed excess)
- Agreed Drilling and Completions SPM score card objectives as found in Attachment D - Global Drilling and completions SPM Score Card.
- Slurry designs and expected properties
- Proposed spacers (volumes/formulations/properties)
- Assumed mud properties
- Temperature simulation results
- Predicted circulating densities and pressures at any potential loss zones
- Centralizer details (type and placement)
- Logistical, bulk and additive requirement
- Cementing hardware needed on location (cement head/water bushings etc.)
- Commercial breakdown of program covering:
 - i. Cement and chemicals
 - ii. Rental equipment
 - iii. Consumables
 - iv. Third party equipment being supplied
 - v. Personnel changes
- Recommended procedures and techniques
- Agreed contingencies

Detailed Cement Report

- Actual well details
- Slurry recipes
- Laboratory test results on rig materials
- Spacer design, volumes and recommended properties
- Equipment requirements
- Job execution procedures, including chemical handling bulk transfers and surface lines pressure testing
- Pumping schedule
- Displacement simulation and ECD prediction
- Frequency - Per cement job - 24 hours prior to execution

BP reasonably believed and relied upon Halliburton's representations in this regard with respect to the operations at the Macondo well.

40. Paragraph 8.3.5 of the contract between Halliburton and BP states that Halliburton must "Provide detailed program and work instructions and ensure all hazards are adequately debated prior to commencing operations. Participate in all COSHH and risk assessments associated with the casing and cement operation." BP reasonably believed and relied upon Halliburton's representations in this regard with respect to the operations at the Macondo well.

MUD LOGGING SERVICES UNDER THE WELL SERVICES CONTRACT

41. Section 3, Appendix 5 (C) sets forth Halliburton's contractual responsibilities for the mud logging services that it provided on the Macondo well.

42. Paragraph 10.1 "defines the minimum level of service that the COMPANY requires from any [Halliburton] Mud logging Unit": "CONTRACTOR is deemed to have an expert knowledge and capability" and BP "expects... (b) The maintenance and calibration of all sensors to ensure that they are always providing accurate data to assist real time decision making, and for processing to aid post-well analysis." BP reasonably believed and relied upon Halliburton's representations in this regard with respect to the operations at the Macondo well.

43. Paragraph 10.2 on the Well Services Contract states that the "Principal objectives of the mud logging service" are to "Monitor the drilling operations parameters...understand their significance to the downhole conditions and advise COMPANY and Drilling Contractor personnel of any situation developing with safety or efficiency implications. Where the situation is judged to be of a serious potential impact, logging personnel should contact the rig floor directly if COMPANY representative cannot immediately be

contacted.” BP reasonably believed and relied upon Halliburton’s representations in this regard with respect to the operations at the Macondo well.

44. Paragraph 10.5.1 of the parties’ contract provides that Halliburton must have a “Drilling Monitor Program” capable of monitoring, “in graphical and textual form,” “Mud flow rate in,” “Mud flow rate out,” and “standpipe pressure.” Paragraph 10.5.2 states that Halliburton must have a “Pit Volume Totalization and Monitor Program” capable of monitoring “trends of the total and individual pit volumes, and trends in the active circulating volume” to “allow for totalizing in any combination to give resultant active and reserve volumes” of the mud pits. And, Paragraph 10.5.4 states that Halliburton must have a “Kick and Kill Monitor Program” to monitor “When the well is shut-in, or whilst killing the well” parameters including: “Casing pressure”; “Standpipe pressure”; “Total pit volume”; “Mud weight in/out”; “Mud flow in”; “Total barrels displaced”; and “Total strokes pumped.” Under the Parties’ contract, Halliburton agreed, promised and represented that it would provide all of these services and equipment to BP with respect to the Macondo well. BP reasonably believed and relied upon Halliburton’s representations in this regard with respect to the operations at the Macondo well.

45. Paragraph 10.7.3 titled “Data Sampling, Processing, and Storage Specifications” specifies “the recording specifications to ensure that accurate, pertinent data is obtained in a reliable manner to aid the real time decision making process and for post well analysis.” Specifically, Halliburton’s mud logging services must meet the following specifications, among others:

- a. Dynamic drilling parameter measurements (including block/kelly position, rig heave, hookload, torque, rotary speed, stand-pipe pressure) shall be filtered to minimize the effects of data aliasing;
- b. Parameters shall all be sampled at a consistent frequency. A minimum sampling frequency of 10Hz is required;

- c. Each of the critical variables shall be allocated low and high level alarms and the setting of these discussed with BP Drilling Representative/Engineer at the start of the well; and
- d. Placement of mud logging sensors shall allow all measurements to be made independently of other CONTRACTOR equipment.

BP reasonably believed and relied upon Halliburton's representations in this regard with respect to the operations at the Macondo well.

46. Paragraph 10.10 states that the "prime responsibility of the [Halliburton] Mud Logging service [is] well monitoring and safety" and "defines Mud Logging activities that are to take precedence during each type of activity ... to avoid ancillary function acting to the detriment of the prime responsibility." Paragraph 10.10.1 expressly states that the "Primary responsibilities [of Halliburton] during Drilling/Circulating" are "Well monitoring, including total gas levels, circulating system volumes, mud flow, mud weight/temperature, mud losses"; "Monitoring for indications of drilling problems, e.g., poor hole cleaning, pipe sticking, bit balling, excessive cavings"; and "Monitoring and display of all logged parameters." BP reasonably believed and relied upon Halliburton's representations in this regard with respect to the operations at the Macondo well.

**HALLIBURTON'S CONDUCT IN CONNECTION WITH THE CEMENTING JOB
BEFORE, ON AND AFTER, APRIL 19-20, 2010**

47. To obtain a cement slurry and placement design that would make zonal isolation possible, Halliburton designed and recommended to BP a nitrified foam cement slurry to cement the production casing in the Macondo well. Foamed slurries can be used to reduce the cement slurry density and prevent gas migration. Halliburton's recommended plan for cement placement in the Macondo well called for pumping base oil, spacer, bottom wiper plug, cap cement, foamed cement, tail cement, top wiper plug and spacer. BP accepted, and reasonably

relied upon, Halliburton's written recommendations for the cement slurry design and the cement plan for the Macondo well.

48. The intended purpose of the nitrified foam cement was to isolate the formation and form a protective barrier to flow. The intended purpose of the tail cement was to fill the shoe track and likewise form a barrier preventing flow into the casing.

49. The ingredients designed and recommended by Halliburton to BP for the Macondo well cement slurry were:

Fluid 4: Foamed Tail Cement – Foamed to average density of 14.5 ppg		
Premium Cement	Fluid Weight	16.74 lbm/gal
94 lbm/sk Premium Cement (Cement)	Slurry Yield:	1.37 ft ³ /sk
0.07 % Halliburton EZ-FLO (Bulk Flow Enhancer)	Total Mixing Fluid:	5.04 Gal/sk
0.25 % D-AIR 3000 (Defoamer)	Top of Fluid:	17400 ft
1.88 lbm/sk KCL (Additive Material)	Calculated Fill:	904 ft
20 % SSA-1 (Additive Material)	Volume:	55.41 bbl
15 % Common White-100 Mesh, SSA-2	Calculated Sacks:	191.44 sks
0.2 lbm/sk SA-541 (Additive Material)	Proposed Sacks:	200 sks
0.11 Gal/sk Zonesealant 2000 (Foamer)		
0.09 Gal/sk SCR-100L (Retarder)		
1 lbm/bbl WellLife 734 (Additive Material) – added by hand to down hole side		

50. On information and belief, Halliburton's EZ-FLO, D-AIR 3000, KCl, and SCR-100L additives are dispersing agents that can destabilize foamed cement slurry.

51. At the time Halliburton recommended the use of its EZ-FLO, D-AIR 3000, KCl, and SCR-100L additives and pumped the cement slurry in the production interval of the Macondo well, Halliburton knew or should have known of the properties of these additives and that they should not be used with foamed cement slurries.

52. Specifically, Halliburton knows and indeed warns that defoamers such as D-AIR 3000 should not be used with foamed cement slurry.

53. Further, Halliburton knows and indeed warns that salts such as potassium chloride (KCl) and dispersants such as SCR-100L should not be used with foamed cement slurry.

54. At no time prior to the *Deepwater Horizon* explosion on April 20, 2010 did Halliburton inform or warn BP that any of the additives in its cement slurry design would destabilize the foamed cement slurry that it recommended using at the Macondo well. To the contrary, Halliburton recommended that BP use the cement slurry that it designed that contained these defoamer and dispersant additives.

HALLIBURTON'S FEBRUARY CEMENT SLURRY TESTING

55. On February 12, 2010, Halliburton conducted a foam stability test on a pilot cement slurry that was similar to the final slurry design but used more retarder additive. The cement slurry was foamed at 14.496 pounds per gallon ("ppg") or 1.737 specific gravity ("sg"). According to Halliburton, the slurry was then poured into a PVC pipe to cure at 180°F for 48 hours. The laboratory worksheet indicates that no conditioning was done on the slurry before foaming, and the test resulted in a cured cement density of 2.02 sg (or 16.8 ppg) on the top and 2.11 sg (or 17.6 ppg) on the bottom. The test results give two indications that the cement slurry did not form a stable foam: the cured cement density was greater than the foamed cement density indicating gas breakout; and the difference in density from top to bottom indicates settling within the foamed cement slurry. These results were not provided to BP before the cement job. Moreover, Halliburton never reported to BP these foam stability test results indicating that the foamed cement slurry was not stable.

56. In addition, the February 12, 2010 laboratory worksheet indicates that a crush compressive strength test on the foam slurry was abandoned because it was observed that the "slurry is settling." Settling is an indication that the foam slurry is not stable. Again, Halliburton did not provide these test observations to BP before the cement job was performed or even after the blowout.

57. On February 16, 2010, Halliburton conducted a second set of tests. The laboratory worksheet indicates that Halliburton conditioned the cement slurry at 180°F for two hours before foaming. As noted above, the Halliburton cement slurry contains a temperature-activated suspension additive, SA-541. SA-541 begins thickening the cement slurry at temperatures of 140°F. The purpose of the additive is to prevent the cement from settling while it is curing at its intended location. Activating the suspension agent makes the cement more viscous and increases the foam stability.

58. However, this laboratory condition is not representative of field conditions. Specifically, the cement on the rig is not conditioned for hours at an elevated temperature before foaming.

59. Using the more viscous cement slurry prepared under modified conditions, Halliburton was able to generate a foam stability test result with a uniform density on the top and bottom of 1.91 sg (15.9 ppg). However, the density was still greater than the target of 14.5 ppg, indicating the cement slurry was not stable.

60. Further, on this February 16, 2010 laboratory worksheet, Halliburton noted additional problems with the crush compressive strength test on the foam slurry it had designed. The lab worksheet states that after 60 hours of cure time the foam cube is “hard on bottom; soft on top” and after 96 hours the cube is “hard on bottom; firm on top.” Despite these indications that the foam slurry was unstable and not curing properly, Halliburton performed a crush compressive strength test.

61. Neither the February 12th nor the February 16th laboratory worksheets containing Halliburton’s test results and observations were provided to BP.

62. On March 8, 2010, Halliburton provided a materially false and fraudulent laboratory report to BP. In the communication attaching the report, Jesse Gagliano of Halliburton misrepresented to BP that he had “attached the lab test for your review.” The same laboratory report was transmitted again on April 1, 2010 with a further materially false and fraudulent misrepresentation from Mr. Gagliano of Halliburton to BP that he had “a pilot test run, see attached.”

63. The materials transmitted to BP on March 8, 2010 and again on April 1, 2010 were not the entirety of the February pilot slurry testing. The transmitted materials were not as Mr. Gagliano represented, and they omitted several test results and observations that indicated that the cement slurry was not stable. Specifically, Halliburton failed to report the foam stability testing results from the February 12th lab worksheet that strongly indicated foam instability. Rather, Halliburton reported only the test results from the February 16th lab worksheet that could suggest foam stability.

64. Halliburton made further misrepresentations and omissions in the report itself. Specifically, when reporting the foam stability test results on March 8, 2010 and April 1, 2010, Halliburton misrepresented the conditions under which those results had been achieved: Halliburton falsely reported to BP that the slurry had been conditioned for 0 hours when in fact it had been conditioned for 2 hours.

65. In the report transmitted on March 8, 2010 and April 1, 2010, Halliburton also reports the crush compressive strength test in a fraudulent and incomplete manner. Halliburton’s report suggests that there was a successful crush test when, in fact, there were known problems with the test. Specifically, the laboratory report provided to BP reports only the

crush compressive strength result and omits information regarding the conditioning time or the physical observations indicating slurry instability.

66. Put most simply, Halliburton affirmatively and falsely represented material facts to BP including (i) that it was transmitting all the test results for the pilot cement slurry; and (ii) that the pilot slurry had passed the tests. In fact, Halliburton had not transmitted the entire test results and, instead, concealed the test results that clearly indicated foam instability. Further, with knowledge of these undisclosed facts, Halliburton did not inform BP that the cement slurry it recommended did not form a stable foam.

67. On March 23, 2010, BP engineers participated in a meeting with Halliburton engineer Mr. Gagliano where they discussed casing options and whether to run a foamed cement slurry. A BP engineer suggested running conventional cement slurry to avoid the added equipment associated with using foamed cement slurry. At that time, Halliburton did not inform BP of or discuss the stability issues with recommended foamed cement.

68. Thus, as of March 23, 2010, Halliburton knew that there were serious problems with its cement slurry design but intentionally withheld and concealed that information from BP. Halliburton knew that BP was considering using conventional cement slurry and did not reveal the known risks with using the Halliburton foam slurry. At the same time, Halliburton provided BP with data and information suggesting that the slurry was stable and that there were no problems with the cement slurry. BP, unaware of the problems with the cement design, continued to work toward completing the well. BP reasonably believed and relied upon Halliburton to tell it the truth and to disclose all material facts and information with respect to Halliburton's laboratory testing of the slurry it was designing.

HALLIBURTON'S APRIL CEMENT SLURRY TESTING

69. After the February testing, Halliburton did not redesign the cement slurry. Instead, on April 13, 2010, Halliburton conducted a foam stability test on a similar slurry (with only a change in the concentration of retarder) that was conditioned at 180°F for 1.5 hours. Once again, Halliburton's laboratory worksheets show that the foam was not stable: 1.88 sg (or 15.7 ppg) at the top; and 1.82 sg (or 15.1 ppg) at the bottom. These foam stability test results were never reported to BP.

70. On April 14, 2010, BP engineers and Halliburton engineer Mr. Gagliano met to discuss Halliburton's modeling for the upcoming cement job at the Macondo well. Mr. Gagliano assured BP engineers that the well could be successfully cemented with a foamed cement slurry even if BP chose to cement a long-string production casing. On April 14, 15, 17, and 18, 2010, Mr. Gagliano sent BP engineers OptiCem models and cement plans for the cement job at the Macondo well. Despite discussing the cement slurry with BP engineers and later sending recommendations to use the foamed cement, Mr. Gagliano did not disclose the foam stability test results from April 13, 2010 or the prior failed stability tests. Nor did Mr. Gagliano raise any concerns with using a foamed cement slurry.

71. On April 16, 2010, a laboratory worksheet was generated for cement testing on the exact cement slurry that was ultimately pumped in the Macondo well, incorporating 0.09 gps of retarder. The listed tests included a foam stability test. However, that test was not run. Instead, there is an internal Halliburton note to "cancel foamed stability as per Jesse." Indeed, no foam stability test was ever completed on the exact cement slurry pumped into the Macondo well. Neither this laboratory worksheet nor the fact that the foam stability test was cancelled was ever provided or disclosed to BP before the April 20, 2010 incident.

72. On April 17, 2010, Halliburton provided another materially false and fraudulent report to BP. Mr. Gagliano set another laboratory report and falsely stated and misrepresented to BP that he had “[a]ttached the lab tests.” But that report did not include the pilot cement tests from February or April indicating that Halliburton had been unable to generate a stable foam cement despite numerous different attempts to do so.

73. As recorded on a laboratory worksheet dated April 17, 2010, Halliburton performed a repeat foam stability test. Halliburton conditioned the cement slurry at 180°F for 3 hours for this test. The test results in a specific gravity of 1.8 on top and 1.799 on bottom—equivalent to 15.0 ppg and still above the target of 14.5 ppg. The conditions for the test conducted on this laboratory worksheet were also unrepresentative of the field conditions because the cement slurry is not conditioned at elevated temperatures for three hours before foaming on the rig. Further, Mr. Gagliano and the Halliburton cement team did not have these test results before beginning the cement job on April 19, 2010.

74. On April 18, 2010, Mr. Gagliano sent BP a “recommended procedure for cementing the casing strings in the referenced well.” By this time, Halliburton had performed three foam stability tests on the cement slurry that it was recommending for use in sealing the bottom of the Macondo well. In each foam stability test that Halliburton had performed, the cement slurry had failed the test and indicated instability. Despite this, Halliburton sent BP a job recommendation to pump this slurry:

<p>Enclosed is our recommended procedure for cementing the casing strings in the referenced well. The information in this proposal includes well data, calculations, materials requirements, and cost estimates. This proposal is based on information from our field personnel and previous cementing services in the area.</p>
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75. Under the heading “Job Recommendation,” Halliburton recommended the unstable foamed cement slurry.

76. Halliburton further provided the Job Procedure, including Detailed Pumping Schedule and Foam Design Specifications. Nowhere in this Job Recommendation did Halliburton inform BP that all of the Halliburton foam stability testing to date had indicated that the recommended foamed cement slurry was unstable. Likewise, Halliburton did not tell BP that it had never tested the foam stability of this particular recommended cement slurry.

77. Halliburton never informed BP engineers of the instability of the foam slurry nor did it redesign the slurry. Instead, Halliburton recommended that BP proceed with the final operations to temporarily abandon the well.

78. On April 19, 2010, based on Halliburton's representations and recommendations, BP gave Halliburton the go-ahead to perform the cement job that was intended to achieve zonal isolation and form a cement barrier that would keep the well from flowing.

79. Halliburton, using its own cementing personnel, began the cement job at approximately 8:00 p.m. on April 19, 2010. Halliburton's mud loggers were charged with monitoring the flow data during the cement job. The cement job took approximately four and one half hours to complete. At the conclusion of the cement job, Halliburton reported to BP that the cement job was a success. Halliburton reported that there were full returns (*i.e.*, no cement losses) and lift pressure during the cement operation. Based on this information, BP personnel on the rig communicated to BP personnel onshore that the cement job was a success.

80. On the morning of April 20, 2010, BP held its morning Macondo meeting. Members of the BP onshore team attended in person and rig personnel attended by phone. In addition, Mr. Gagliano of Halliburton and various contractors attended the morning meeting in person and by phone. A Halliburton cement engineer on the rig gave an overview of the cement

job and indicated that it was executed successfully. At the meeting, BP announced its intention not to run a cement bond log in light of Halliburton's report that there were full returns during the cement job and that the cement job was successful. At that time, the various parties and contractors involved with the Macondo well were invited to comment on this decision. Despite having unique information about the stability of the cement slurry, Halliburton did not request that a cement bond log be run or notify BP that the improperly-designed Halliburton cement could fail even if it were pumped correctly.

81. BP continued operations without performing a cement bond log and the rig crew proceeded with a negative pressure test that underbalanced the well without ever knowing what Halliburton knew—that the cement at the bottom of the well was highly unstable. Less than 24 hours after Halliburton finished its work, the cement on the bottom of the well allowed hydrocarbons to flow uncontrolled, resulting in the blowout and explosion, loss of life and personal injuries, and subsequent flow of oil into the Gulf of Mexico.

82. Thus, from February 2010 until April 19, 2010 when Halliburton performed the cement job to isolate the reservoir, Halliburton repeatedly misrepresented the results and nature of its testing, reported false and misleading test results, and concealed unfavorable test data. At no time before April 20, 2010 was BP aware that Halliburton had information showing that the cement slurry it pumped on April 19-20, 2010 was unstable. Based on Halliburton's fraudulent misrepresentations and omissions, BP allowed Halliburton to pump the cement slurry that it recommended to BP. Halliburton has only recently admitted that its cement failed to achieve zonal isolation and permitted hydrocarbon flow.

CHEVRON FOUND THAT HALLIBURTON'S CEMENT DESIGN WAS DEFECTIVE

83. The problems with the cement slurry that Halliburton designed, recommended and pumped were also confirmed by Chevron. Following the incident,

Halliburton provided cement and additive samples similar to those used at the Macondo well to Chevron for testing. On October 26, 2010, Chevron stated that it was unable to generate a stable foam cement using the same components and design parameters that Halliburton used to produce the cement slurry for the Macondo well production casing. Among other things, Chevron identified numerous problematic issues with the Halliburton cement:

- First, the unfoamed cap and shoe cement slurry had poor fluid loss properties. And, despite its poor fluid loss qualities, the Halliburton-designed cement slurry did not incorporate a fluid loss additive.
- Second, the crush compressive strength test could not be performed on the foam slurry cubes because, after the appropriate cure time, the samples were removed from the molds and were observed to have lost approximately one-half inch of their original two-inch height.
- Third, FYSA Viscosity Profile testing on the foamed cement could not be performed because a stable foam could not be formed.
- Fourth, foam stability testing showed that the Halliburton-designed slurry did not generate a stable foam. Specifically, Chevron stated that a series of nine tests were conducted under varying conditions but none of the tests produced a stable foam.
- Fifth, the foam stability tests on cement slurry contaminated with mud or spacer were canceled due to the inability to generate stable foams.

- Finally, static gel strength testing showed that the Halliburton-designed slurry had poor gel transition time and would not be suitable for controlling gas migration.

HALLIBURTON, WHO WAS THE SENTINEL FOR THE WELL, FAILED TO DETECT AND ALERT THE CREW TO THE IMPENDING BLOW OUT

84. On April 20, 2010, once the cement job was finished, the *Deepwater Horizon* crew then began taking the next steps to temporarily abandon the well. This included running a negative pressure test and displacing the heavy drilling mud with seawater. As the heavy drilling mud was displaced, the well bore would become underbalanced relative to the pore pressure exerted from the formation over three miles below the surface. A critical barrier standing between a pressurized reservoir of oil and gas and the crew on the *Deepwater Horizon* was the cement designed and pumped by Halliburton. If that cement failed to isolate the hydrocarbon layers, for whatever reason, it fell to the Halliburton mud loggers, whose “prime responsibility” was “well monitoring and safety,” to monitor the sensors for indications of a kick and alert the Transocean drilling crew in time for steps to be taken to prevent a blowout.

85. The Halliburton mud logger on duty on April 20, 2010 at all relevant times during the displacement of the riser was Joseph Keith. Mr. Keith began his shift at approximately 5:30 p.m. on April 20, 2010. To perform his duties, Mr. Keith was stationed at the mud loggers shack or office, where he monitored both real time graphical readouts of data on large computer monitors as well as closed circuit television screens that allowed him to monitor a number of essential parameters, including flow in versus flow out, drill pipe pressure and mud level changes in the trip tanks

86. From approximately 7:00 p.m. until 8:52 p.m., the Transocean crew was engaged in steps to temporarily abandon the well. At approximately 8:00 p.m., the crew began

displacing the drilling mud in the well with seawater. The well was now being deliberately underbalanced. If the cement barrier had failed to isolate the hydrocarbon layers, the well would begin to flow posing a safety risk to the crew on the *Deepwater Horizon*. Halliburton knew and understood that, at critical junctures like this, continuous monitoring of the well by its mud loggers was essential to prevent a blowout. However, Mr. Keith either abandoned his post during this critical time period or he missed the indicators that the well was flowing. Significantly, post-incident, Mr. Keith represented and told BP's Internal Investigation Team that at no time did he leave his position. Only months later did Mr. Keith finally reveal that, in fact, he did leave his post unattended around 9:00 p.m. for the purpose of having a smoke, getting some coffee, and using the bathroom.

87. At 8:52 p.m., the data available to the Halliburton mud loggers indicated that the well had begun to flow. By 8:58 p.m., the data indicators that the well had begun flowing were evident to any competent mud logger. But Halliburton's mud loggers did not inform anyone about these indicators.

88. By 9:08 p.m., the trip tank had gained 39 barrels, another indicator that the well was flowing. Also at or near this time a visible alarm showing that there had been an abnormal gain in the tanks appeared on the Halliburton mud logger's monitor. It required manual acknowledgment to turn it off. Mr. Keith either missed this alarm or had turned off his alarms without BP's knowledge.

89. By 9:08 p.m., the drill pipe pressure, which should have been decreasing during the displacement, had reversed course and climbed from 1,250 psi to 1,350 psi. Halliburton's mud logger, Mr. Keith, did not see this signal indicating a kick either.

90. At 9:08 p.m., the spacer returned to the surface and the pumps were shut down in order to allow sheen testing of the spacer.

91. From 9:08 p.m. to 9:14 p.m., while the sheen test was being conducted and the rig's pumps were shut off, the pressure on the drill pipe increased another 250 psi. Mr. Keith missed this kick signal also.

92. Having determined that the sheen test was satisfactory, the *Deepwater Horizon* crew restarted the pumps to continue displacing the riser with seawater.

93. From 9:14 p.m. to 9:25 p.m., the drill pipe pressure increased to over 2,500 psi. Halliburton's mud logger, Mr. Keith, claims that he was at his station but did not see that the well was now experiencing a large kick and on its way to blowing out. By now the gas was rapidly expanding in the riser.

94. At approximately 9:41 p.m. the Halliburton mud logger, Mr. Keith, finally noticed that the well was flowing. But it was not because of the computer displays that he was charged with monitoring. It was because the well had blown out and mud was literally raining down on the mud loggers shack where he was sitting. Minutes later, the first explosion occurred.

AFTER THE *DEEPWATER HORIZON* INCIDENT

95. Post-job report: On April 23, 2010, Halliburton sent to BP a post-job report purporting to summarize the results of the April 19, 2010 cement operation on Macondo. In the report, Halliburton represented to BP that the cement job had been completed successfully:

- Cement job pumped as planned.
- Chemical straps determined that additives were pumped at planned volumes.
- Rig completed displacement and both plugs were bumped.

- Full returns seen throughout entire job.
- Estimated 100 psi of lift pressure (350 psi circulating to 450 psi circulating), before bumping top plug.
- Floats held after job.

Nowhere in the April 23, 2010 transmission did Halliburton indicate that the cement job had failed or that the cement slurry had stability issues.

96. Halliburton, in its April 23, 2010 transmission to BP, additionally represented that there was no mud lost during cementing, no annular flow, and that MMS requirements for top of cement (“TOC”) were achieved:

- Returns While Cementing? Yes.
- Mud Lost While Cementing? No.
- Annular Flow Before/After Cementing? No.
- Estimated TOC: 17,300 ft.
- MMS. Req. met: Yes.

97. Halliburton’s representations were made with no foundation in fact and, on information and belief, with the intent to continue to conceal its defective cement.

98. On April 26, 2010, four days after the *Deepwater Horizon* sank, Halliburton sent the partial results from its April testing in a laboratory report. Mr. Gagliano wrote in the e-mail transmitting the report: “See attached, Lab test not captured in Post-job Report.” The report, however, does not contain the failed foam stability test results from the April 13, 2010 laboratory worksheet or the earlier February tests. Once again, even after the explosion, Halliburton concealed the failed test results.

99. Further, the laboratory report sent on April 26, 2010 misrepresents the composition of the cement slurry tested. Although the report indicates that it is for the cement slurry pumped into the Macondo well with 0.09 gallon per sack (“gps”) of retarder, many of the results are for cement tests on a slurry with 0.080 gps of retarder.

100. Specifically, the foam stability test reported for the slurry with 0.09 gps of retarder was actually performed on a slurry with less retarder as shown in a laboratory worksheet dated April 17, 2010.

101. On April 26, 2010, a BP engineer requested information about the cement operation from Jessie Gagliano. The purpose of the request was to obtain relevant data and information about the cement slurry and its properties and the cement operation in order to assist in the relief well efforts. After receiving some of the reports and test reports previously provided to BP, the BP engineer noticed that the cement slurry design included D-AIR 3000 defoamer additive. The BP engineer asked Mr. Gagliano if there were any problems with the foamed cement stability, Mr. Gagliano misrepresented that Halliburton had tested the cement slurry with the defoamer and there were no stability problems. In addition to this affirmative misrepresentation that there were no stability problems, Mr. Gagliano provided the BP engineer with the April 26, 2010 laboratory report, which did not report or include information about the unstable foam stability test results.

102. On April 30, 2010, Halliburton issued a press release that suggests its cement worked as intended and that its cement slurry did not have any involvement in the Macondo blowout. Among other things, Halliburton stated: “Halliburton had completed the cementing of the final production casing string in accordance with the well design approximately

20 hours prior to the incident. The cement slurry design was consistent with that utilized in other similar applications.”

103. On September 26, 2010, Halliburton told the public, the financial markets, its shareholders, BP and United States governmental officials that “Using rig cement, additives, and rig water, a stable foam cement system was designed, tested, delivered and quality assured on location.” Halliburton further stated that its “Foam slurry passed all API 10B-4 9.3.4 requirements” because “[t]he density of the cured foam slurry, using the Archimedes principle, was identical at top and bottom,” indicating “no free water” and “no settling.” This statement, however, was materially misleading because it ignored the settling and foam instability observed in the cement tests.

104. Shortly after the casualty, BP formed an Internal Investigation Team. Its purpose and charge was to determine the cause of the casualty. On May 14, 2010, BP’s investigation team interviewed Jesse Gagliano. Mr. Gagliano did not tell the investigation team that the cement slurry that Halliburton had designed, recommended and pumped had instability issues. To the contrary, he told the investigation team that Halliburton had completed the testing and it all looked good. On August 24, 2010, Mr. Gagliano publicly repeated that statement.

105. Further, on at least July 7, 2010, BP’s Internal Investigation Team requested all of Halliburton’s test results for the foamed cement slurry pumped at the Macondo well. This information was needed for the investigation that would result in the September 8, 2010 public report issued by BP’s Internal Investigation Team. Halliburton represented to investigation team that it had provided all of the results from its laboratory testing. This statement was later demonstrated to be false when it was shown on November 8, 2010 that Halliburton had additional test results showing foam instability.

106. In brief, even following the blowout and sinking of the *Deepwater Horizon*, Halliburton continued to conceal its role in designing, recommending and pumping a defective cement slurry. On April 23, 2010, Halliburton falsely told BP that the cement job was completed successfully. On April 30, 2010, Halliburton repeated those false assertions to the world. Around April 26, 2010, Jesse Gagliano told BP that Halliburton had tested the cement slurry with the defoamer additive and it was stable. And, on May 14, 2010, Halliburton cement engineer Jesse Gagliano stated falsely and misrepresented to the BP Internal Investigation Team that all of the test results looked good. Halliburton likewise falsely told the BP Internal Investigation Team that it had provided all of the test results to the team. On August 24, 2010, a Halliburton cement engineer falsely stated to the public that Halliburton had conducted cement testing and the results looked good. On September 26, 2010, Halliburton representatives again falsely represented to the public that it had successfully tested the cement slurry. Even as BP, government agencies and scientists were working around the clock to determine the cause of the *Deepwater Horizon* incident in order to stop the flow of hydrocarbons and prevent similar incidents in the future, Halliburton continued to conceal and make false statements to prevent BP and others from learning the truth about the defective cement slurry that it designed, recommended and pumped at the Macondo well.

107. Halliburton possessed unique knowledge and expertise concerning cement slurry, design, formulation and ingredients, and foam cement design, formulation and ingredients for the production string at the Macondo well.

108. Halliburton knew before it began the cementing operation that it had not tested the foam stability of the cement slurry that it was pumping into the Macondo well but that foamed cement slurries with similar composition had failed the foam stability tests.

109. As such, Halliburton knew that even if its slurry was pumped as planned and resulted in full returns as envisioned in BP's decision tree, there was still a significant risk of failure of the cement to isolate the hydrocarbons because of the foamed cement slurry was unstable in laboratory testing.

110. Despite Halliburton's unique knowledge of the foam cement slurry that it designed and pumped into the production interval of the Macondo well, Halliburton did not inform BP of any risks to the well, and did not warn BP or any of the other parties or the drilling crew of the potential risk of blow out. As such, BP and the other parties were not able to take additional precautions in light of the added risk of an unstable foamed cement slurry.

**THE CLAIMS, LAWSUITS, AND EXPENSES ASSERTED AGAINST BP AS RESULT
OF THE *DEEPWATER HORIZON* INCIDENT**

111. Oil and gas flowed from the Macondo well into the Gulf of Mexico until July 15, 2010. The scale of the response program was massive and unprecedented. From the outset of the *Deepwater Horizon* incident, BP has expressed its commitment to pay all legitimate OPA claims, while always reserving its right to seek reimbursement, contribution, and indemnification from other responsible parties.

112. Plaintiffs have named BP as a defendant in hundreds of lawsuits arising out of the *Deepwater Horizon* incident pending before this Court and in other courts.

113. The DOJ Complaint seeks, *inter alia*, "a declaratory judgment that is binding in this action and any subsequent action or actions against Defendants BP, Anadarko Exploration, Anadarko Petroleum, MOEX, Triton, Transocean Holdings, Transocean Offshore, and Transocean Deepwater, jointly and severally and without any limitation, and Lloyd's, the latter up to the amount of its COFR guarantee, that said Defendants are liable for removal costs and damages in this action and in any such subsequent action or actions."

114. The DOJ Complaint also alleges that: “‘natural resources,’ as that term is defined in OPA, 33 U.S.C. § 2701(2), have been injured, destroyed, or lost;” the “amount of damages and the extent of injuries sustained by the United States as a result of the Deepwater Horizon Spill are not yet fully known, but far exceed \$75,000,000” and that “[a]s a result of the Deepwater Horizon Spill, the United States has expended and/or sustained and/or will expend or sustain, *inter alia*, ‘removal costs’ and ‘damages,’ within the meaning of OPA, 33 U.S.C. § 2702(b).”

115. The total amounts that ultimately will be paid by BP in any form relating to the incident are subject to significant uncertainty. The ultimate exposure and cost to BP will depend on many factors, including the amount of claims that become payable by BP, the outcome of lawsuits, and any costs arising from any longer-term environmental consequences of the oil spill.

116. As of the end of 2010, BP’s incurred costs relating to the incident were \$17.7 billion. BP’s group income statement for 2010 reflects a pre-tax charge of \$40.9 billion in relation to the Gulf of Mexico oil spill.

COUNT I: HALLIBURTON’S FRAUDULENT CONDUCT

117. BP realleges and incorporates by reference each allegation contained in the preceding paragraphs as if fully set forth herein.

118. Halliburton made at least the following affirmative material false statements and misrepresentations to BP:

- a. On March 8, 2010, Mr. Gagliano told BP that he was sending “the lab test for your review” when, in fact, he did not send all of the pilot test results nor did he send the test results showing that the cement slurry had failed the tests;

- b. On April 1, 2010, Mr. Gagliano wrote to BP that “I already have a pilot test run, see attached” when, in fact, he did not send all of the pilot testing results nor did he send the test results showing that the cement slurry had failed the tests;
- c. The pilot test results sent on March 8th and April 1st indicated that no conditioning had been done on the foamed cement slurry when, in fact, the slurry had been conditioned for two hours;
- d. The pilot test results indicated that the crush compressive strength test was successfully conducted when, in fact, one test was cancelled due to settling and the other test had indications of foam instability;
- e. On April 17, 2010, Mr. Gagliano told BP that he had “[a]ttached the lab tests” when, in fact, he had not attached all of the test results nor did he send the test results which showed failures of the tests;
- f. On April 23, 2010, Mr. Gagliano transmitted a post-job report to BP that stated that “Cement job pumped as planned,” “Full returns seen throughout entire job,” “Mud Lost While Cementing: No,” “ Estimated TOC: 17,300 ft.,” and “MMS. Req. met: Yes”—even though Halliburton could not verify this information;
- g. On April 26, 2010, Mr. Gagliano told BP to “See attached. Lab test not captured in Post-job Report” when, in fact, he had not attached all of the lab tests not captured in the post-job report nor did he attach any failed test results;

- h. The laboratory report transmitted on April 26, 2010 to BP indicated that Halliburton had tested the foam stability of the cement slurry poured at the Macondo well when, in fact, Halliburton had not tested that slurry;
- i. On or around April 26, 2010, Mr. Gagliano told a BP engineer that the cement slurry containing a defoamer had no stability problems when, in fact, it did have stability problems based on Halliburton's testing; and
- j. On April 30, 2010, Halliburton issued a press release informing BP and others that "Halliburton had completed the cementing of the final production casing string in accordance with the well design approximately 20 hours prior to the incident. The cement slurry design was consistent with that utilized in other similar applications" but at no time did Halliburton tell or inform BP or anyone else about any failed test results.

119. The testing information that Halliburton misrepresented was material—indeed, it was critical. Had Halliburton disclosed the failed test results to BP, BP would not have proceeded with the cement job on April 19-20, 2010. Moreover, BP would not have authorized the pouring of an unstable foamed cement slurry into the Macondo well and it would have taken significant mitigating steps, such as running additional tests to ensure well bore integrity.

120. Halliburton knew and understood it was misrepresenting material information, knew that BP was relying upon those representations, and did so knowing that BP was relying upon Halliburton to provide professional cementing services. But for Halliburton's false statements and misrepresentations, BP would not have authorized the pouring of the unstable slurry. Halliburton's misconduct and false statements induced BP to proceed with the

cement job, believing that the cement slurry design recommended by Halliburton had passed the necessary tests, when in fact it had not.

121. Following the incident, Halliburton continued to deceive BP and others. Thus, its intent to deceive BP both before and after the casualty was evident in its continued efforts to misrepresent and conceal the results of the slurry testing from BP.

122. Had BP been informed of the testing information that Halliburton misrepresented it would have never authorized the pouring of the cement on April 19, 2010.

123. Had BP been informed of the testing information that Halliburton misrepresented, it would have taken significant mitigating steps to address the risk on April 20, 2010 following the cementing operations. BP also would have alerted its own personnel onboard and the crew of the *Deepwater Horizon* to be particularly vigilant had Halliburton given BP any reason to believe that the cement slurry Halliburton designed was unstable or would not work.

124. Halliburton's knowing misrepresentations were a cause-in-fact and also a legal cause of BP's injuries. As a result of Halliburton's knowing misrepresentations, BP allowed Halliburton to pour the unstable foamed cement slurry and did not detect the failure of the cement through the additional precautions that it would have taken had it known the results of Halliburton's testing. But for Halliburton's multiple acts of material misrepresentations of fact, that is fraud, the casualty would not have occurred, the well would not have become uncontrollable, the explosion would not have happened, and the resulting deaths, injuries and oil spill would have been avoided.

COUNT II: HALLIBURTON'S FRAUDULENT CONCEALMENT

125. BP realleges and incorporates by reference each allegation contained in the preceding paragraphs as if fully set forth herein.

126. From February 2010 to April 20, 2010 Halliburton concealed from BP the results of testing that it had performed that showed that the cement was unstable. Specifically, Halliburton concealed from BP at least the following material facts:

- a. Mr. Gagliano and others at Halliburton concealed from BP known problems with the stability of the foam cement slurry that Halliburton recommended to BP for the Macondo well;
- b. Mr. Gagliano and others at Halliburton concealed from BP the results of the foam stability test reported on the laboratory worksheet dated February 12, 2010;
- c. Mr. Gagliano and others at Halliburton concealed from BP the cancelled crush compressive strength test and the observations of settling in the foam cement reported on the laboratory worksheet dated February 12, 2010;
- d. Mr. Gagliano and others at Halliburton concealed from BP the cement slurry preparation conditions on the laboratory worksheet dated February 16, 2010;
- e. Mr. Gagliano and others at Halliburton concealed from BP the observations of foam instability in the crush compressive strength test reported on the laboratory worksheet dated February 16, 2010;
- f. Mr. Gagliano and others at Halliburton concealed from BP the results of the foam stability test reported on the laboratory worksheet dated April 13, 2010;

g. Mr. Gagliano and others at Halliburton concealed from BP the cancellation of the foam stability test reported on the laboratory worksheet dated April 16, 2010; and

h. Mr. Gagliano and others at Halliburton concealed from BP that the foam stability test reported on the report sent April 26, 2010 was not for the slurry poured at the Macondo well.

127. The testing information that Halliburton concealed was material, indeed, it was critical. Had Halliburton provided the failed test results to BP, BP would not have proceeded with the cement job on April 19-20, 2010. Moreover, as BP would not have authorized the pouring of an unstable foamed cement slurry into a pressurized reservoir and it would have taken significant mitigating steps, such as running additional tests to ensure well bore integrity.

128. Halliburton knew and understood it was concealing material information, knew that BP was relying upon its expertise, and did so knowing that BP was relying upon Halliburton to do its job under the parties' contract. But for Halliburton's concealment, BP would not have authorized the pouring of the unstable slurry. Halliburton's misconduct and concealment induced BP to proceed with the cement job, believing that the cement slurry design recommended by Halliburton had passed the necessary tests when, in fact, it had not.

129. Had BP been informed of the testing information that Halliburton concealed it would have never authorized the pouring of the cement on April 19, 2010.

130. Had BP been informed of the testing information that Halliburton concealed, it would have taken significant mitigating steps to address the risk on April 20, 2010 following the cementing operations. BP also would have alerted its own personnel onboard and

the crew of the *Deepwater Horizon* to be particularly vigilant had Halliburton given BP any reason to believe that the cement slurry Halliburton designed was unstable or would not work.

131. Halliburton's knowing concealment was a cause-in-fact and also a legal cause of BP's injuries. As a result of Halliburton's knowing concealment, BP allowed Halliburton to pour the unstable foamed cement slurry and did not detect the failure of the cement through additional precautions that it would have taken had it known the results of Halliburton's testing. But for Halliburton's multiple acts of fraudulent concealment, the casualty would not have occurred, the well would not have become uncontrollable, the explosion would not have happened, and the resulting deaths, injuries and oil spill would have been avoided.

COUNT III: HALLIBURTON'S NEGLIGENCE AND FAULT

132. BP realleges and incorporates by reference each allegation contained in the preceding paragraphs as if fully set forth herein.

133. Halliburton had a duty to use reasonable care in the design, testing, mixing and pumping of the cement and in the monitoring of the well. As described above, Halliburton breached that duty of reasonable care with respect to, among other things, its provision of professional services. Moreover, Halliburton was negligent by, among other things:

- a. Failing to properly run the OptiCem model, including failing to make the proper assumptions and inputs. In this regard, Halliburton made numerous basic mistakes in the OptiCem model, including inputting demonstrably wrong information when it had the correct information to input into the model;
- b. Failing to properly design the cement for the on-site conditions, including designing a cement slurry that was unstable and prone to nitrogen breakout;

- c. Adding a defoamer that destabilized the foam cement slurry;
- d. Failing to add appropriate fluid loss control additives;
- e. Failing to properly test the cement slurry design;
- f. Failing to report to BP the results of the cement testing;
- g. Failing to run the minimum tests required under the BP-Halliburton contract;
- h. Failing to follow Halliburton's own cementing guidelines;
- i. Pouring a cement that it knew was unstable;
- j. Failing to properly evaluate the success of the cement job;
- k. Failing to provide competent cementing personnel;
- l. Failing to provide competent mud logging personnel;
- m. Abandoning the mud logging station at a critical time;
- n. Missing or ignoring data indicators that the well was flowing; and
- o. Missing or ignoring alarms that indicated that the well was flowing.

134. Halliburton's negligence, or if established based upon the evidence at trial that Halliburton's conduct constituted gross fault and/or gross negligence, was a cause-in-fact and also a legal cause of BP's injuries. But for Halliburton's multiple acts of negligence, the casualty would not have occurred, the well would not have become uncontrollable, the explosion would not have happened, and the resulting deaths, injuries and oil spill would have been avoided.

COUNT IV: CONTRIBUTION

135. BP realleges and incorporates by reference each allegation contained in the preceding paragraphs as if fully set forth herein.

136. The Oil Pollution Act of 1990 (“OPA”) states that “A person may bring a civil action for contribution against any other person who is liable or potentially liable under this Act or another law.” 33 U.S.C. § 2709.

137. The DOJ Complaint alleges that, as a result of the *Deepwater Horizon* incident, natural resources have been injured, destroyed, or lost; the amount of damages and the extent of injuries sustained by the United States are not yet fully known; and the United States has expended and/or sustained and/or will expend or sustain, *inter alia*, “removal costs” and “damages,” within the meaning of OPA, 33 U.S.C. § 2702(b). The DOJ Complaint also seeks a declaratory judgment that BP and the other defendants are liable for removal costs and damages in this action and in any such subsequent action or actions.

138. If the United States successfully obtains and/or will obtain a monetary recovery from BP pursuant to OPA as a result of the release of oil and hazardous substances in connection with the *Deepwater Horizon* incident, including but not limited to the removal costs and damages alleged in the DOJ Complaint, such OPA financial liabilities to the United States on the part of BP would not primarily be due to any fault or negligence on the part of BP.

139. In addition to the claims in the DOJ Complaint, plaintiffs have initiated hundreds of suits naming BP as a defendant under federal, state and common law claims.

140. Halliburton is liable under “[OPA] or another law” for the alleged damages related to the oil spill resulting from the *Deepwater Horizon* incident for the reasons explained above.

141. If BP is held liable to the United States or plaintiffs for any monetary recovery “under [OPA] or another law,” including but not limited to the removal costs and

damages alleged in the DOJ Complaint, Halliburton is liable in contribution to BP under Sections 1009 and 1017 of OPA, 33 U.S.C. §§ 2709 and 2717.

142. To the extent other laws are applicable, Halliburton is further liable for contribution to BP.

143. Furthermore, BP for its part is *not* liable to Halliburton for contribution, indemnification or otherwise for liability arising from the *Deepwater Horizon* incident. In particular and based on, among other things, the allegations set forth above, BP is not liable in such fashion to Halliburton under OPA, the terms and conditions of the Well Services Contract, or under any applicable law.

144. An actual controversy currently exists between BP and Halliburton with regard to Halliburton's liability to BP for any monetary recovery from BP obtained and/or to be obtained by the United States and plaintiffs in connection with the *Deepwater Horizon* incident. A declaratory judgment is therefore appropriate to define Halliburton's liability in contribution to BP for BP's liabilities, if any, to the United States and plaintiffs and also to bind Halliburton in any subsequent action or actions that BP may bring.

COUNT V: SUBROGATION

145. BP realleges and incorporates by reference each allegation contained in the preceding paragraphs as if fully set forth herein.

146. The Oil Pollution Act of 1990 ("OPA") states "Any person ... who pays compensation pursuant to this Act to any claimant for removal costs or damages shall be subrogated to all rights, claims, and causes of action that the claimant has under any other law." 33 U.S.C. § 2715.

147. The *Deepwater Horizon* incident has caused and continues to cause harm, loss, injuries, and damages to BP, including but not limited to harm, loss, injuries, and damages

related to the blowout of the Macondo well, the resulting explosion and fire onboard the *Deepwater Horizon*, the effort to regain control of the MC252 well, the oil spill that ensued before control of the Macondo well could be regained, and claims related to the *Deepwater Horizon* incident and oil spill.

148. BP has paid, and, on information and belief, will continue to pay damages to resolve claims related to the *Deepwater Horizon* incident.

149. Halliburton is wholly or partly at fault for the *Deepwater Horizon* incident, resulting oil spill, and related damages for the reasons explained in the preceding allegations.

150. Halliburton is liable in subrogation to the extent that BP has directly or indirectly paid claims to settle causes of action against BP under non-OPA causes of action, whether based on international law, state law, or other federal law.

151. To the extent other laws are applicable, Halliburton is further liable to BP in subrogation.

152. Accordingly, under Section 2715 of OPA, BP is entitled to recover from Halliburton reimbursement for all or a part of the damages, costs and expenses related to the *Deepwater Horizon* incident and resulting oil spill that BP has paid or will pay.

153. In addition, under subrogation law, BP is also entitled to recover from Halliburton reimbursement for all or a part of the damages, costs and expenses related to the *Deepwater Horizon* incident and resulting oil spill that BP has paid or will pay.

PRAYER FOR RELIEF

Wherefore, BP respectfully asks of this Court:

1. Enter judgment in BP's favor against Halliburton.

2. Award BP compensatory and economic damages equal to, or in the alternative proportional to Halliburton's fault, the amount of costs and expenses incurred by BP to clean up and remediate the oil spill, the amount of claims paid by BP under the Oil Pollution Act, the amount of any judgments BP incurs or pays, the amount of any OPA financial liability that BP is liable for, the lost profits from and/or diminution in value of the Macondo prospect, and all other costs and damages incurred by BP related to the *Deepwater Horizon* incident and resulting oil spill, plus interest.
3. Find that Halliburton misrepresented material facts to BP causing BP to suffer damages in an amount to be determined at trial.
4. Find that Halliburton intentionally misrepresented material facts to BP causing BP to suffer damages in an amount to be determined at trial.
5. Find that Halliburton concealed material facts from BP causing BP to suffer damages in an amount to be determined at trial.
6. Find that Halliburton intentionally concealed material facts from BP causing BP to suffer damages in an amount to be determined at trial.
7. Find that Halliburton committed negligence, or if established by the evidence at trial, gross fault and/or gross negligence, in the performance of its professional services, including cementing and/or mud logging services, causing BP to suffer damages in an amount to be determined at trial.

8. Find that Halliburton caused or contributed to the *Deepwater Horizon* incident and is responsible in whole or in part for all damages incurred by BP in an amount to be determined at trial.
9. Award damages in light of Halliburton's tortious conduct or, if it is established that BP's injury was caused by Halliburton's gross fault or gross negligence, appropriate damages.
10. Declare pursuant to 28 U.S.C. § 2201 that BP may recover from Halliburton any financial liability amounts for which BP is determined to be liable, if any.
11. Further, declare pursuant to 28 U.S.C. § 2201 that BP is not liable in contribution, indemnification or other forms of monetary payment to Halliburton with regards to liabilities arising from the *Deepwater Horizon* incident under OPA, the Well Services Contract, or under any applicable law.
12. Award the reasonable costs and attorneys' fees incurred by BP in prosecuting this action.
13. Award such other relief as the Court may deem appropriate and just.

Dated: April 20, 2011

Respectfully submitted,

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